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November 12, 2021

Ms. Jennifer Knoepfle, Ph.D., P.G.
Remedial Project Manager
U.S. EPA Region 5 (SR-6J)
Superfund Division
77 West Jackson Blvd.
Chicago, Illinois 60604

Mr. Brian Conrath
National Priorities List Unit
Federal Sites Remediation Section
Division of Remediation Management
Bureau of Land
Illinois Environmental Protection Agency
1021 N. Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

Subject: Response to Comments on Review of Second Quarter 2021 Groundwater Management Zone (GMZ) Monitoring and System Performance Report (2Q 2021 Report)
Hamilton Sundstrand Corporation (HSC) Plant 1/2 Facility
Area 9/10 Remedial Action
Southeast Rockford Groundwater Contamination Superfund Site, Rockford, Illinois (ILD981000417)

Dear Ms. Knoepfle and Mr. Conrath:

On behalf of Hamilton Sundstrand Corporation (HSC), AECOM Technical Services Inc. (AECOM) has completed this response letter to the United States Environmental Protection Agency (USEPA) October 21, 2021 comment letter regarding the *Second Quarter 2021 Groundwater Monitoring Zone Monitoring and System Performance Report* (AECOM, 2021) for the HSC Plant 1/2 Facility in Rockford, Illinois (Site).

The revision (submitted concurrently with this letter), includes (as appropriate) the responses noted below. The revision is entitled *Revision 1: Second Quarter 2021 Groundwater Monitoring Zone Monitoring and System Performance Report,* which is referred to as the Report, herein.

Comment 1: ***Table 4.6. Cell 1 Column. End of Table.*** *Cell 1 appears to have been off from the period 3/26-5/26, but the cumulative mass removed increased. Please verify and correct as necessary.*

Pulse-off period July 22, 2020 to September 29, 2020						
9/29/2020	14999	0.00	55.03	14999	0.00	119.7
11/25/2020	15246	0.00	55.13	15246	0.00	119.8
Pulse-off period November 25, 2020 to January 21, 2021						
1/21/2021	15247	0.00	55.13	15247	0.00	119.8
3/26/2021	15524	0.00	55.20	15524	0.00	119.9
Pulse-off period March 26, 2021 to May 26, 2021						
5/26/2021	15524	0.00	55.21	15524	0.00	119.9

Response: The cumulative run-time hours were rounded to the nearest whole number. The hour readings have been changed to include two significant figures on the tables in the Report, which accounts for the increase in cumulative mass removed.

Comment 2: ***Table 4.6. Mass Removal Rate.*** *Beginning in about 2011 for cells 1-3 and 2012 for cells 4-5 the mass removal rate is stated as '0.00'. Clearly the rate is not zero, but it is below the precision of the number used in the table. The rate value should be converted to scientific notation similar to what is shown in Table 4.5 for the removal rates of the various COCs.*

Response: The mass removal rates have been converted to scientific notation in the Report.

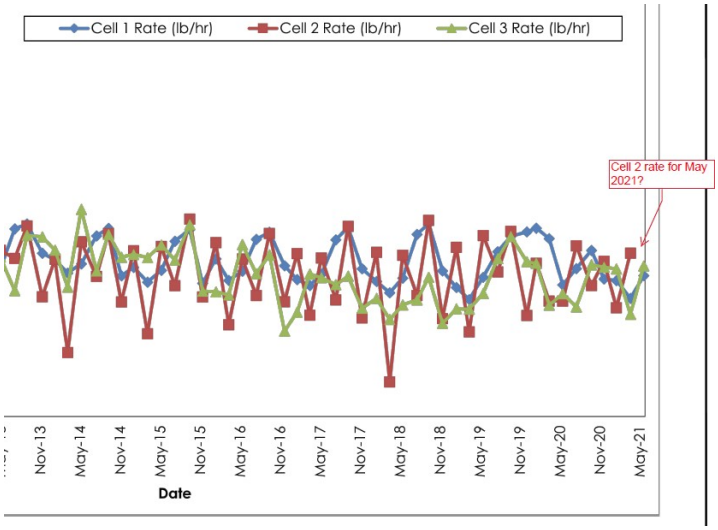
Comment 3: ***Figure 4.*** *There are dashed potentiometric lines in the figure. Please add this symbol and definition (dashed where inferred/approximately located) to the legend.*

Response: The figure has been updated per the request in the Report.

Comment 4: ***Figure 5****. The results box for PMW02 shows two rows for 24-Feb-21. Verify and correct as necessary.*

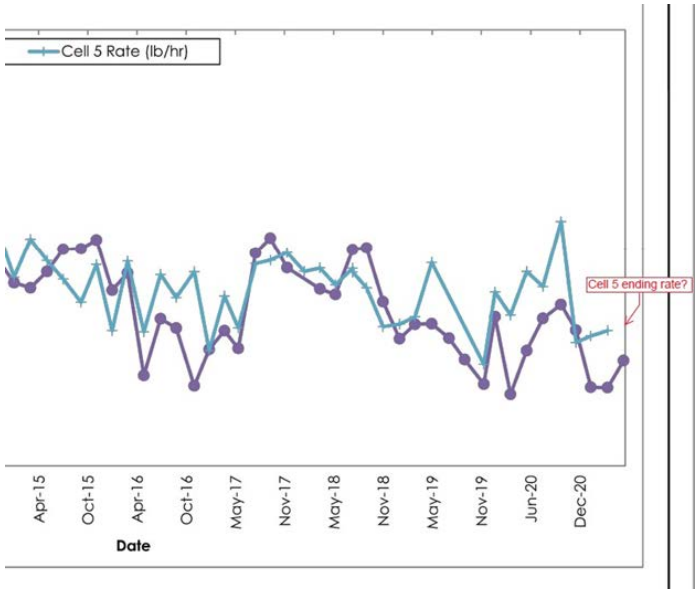
Response: The second date has been corrected in the Report.

Comment 5: ***Figure 8****.*



Response: The figure has been updated in the Report.

Comment 6: ***Figure 9.*** *There appears to be a missing value on this plot for Cell 5. Verify and correct as necessary****.***



Response: The figure has been updated in the Report.

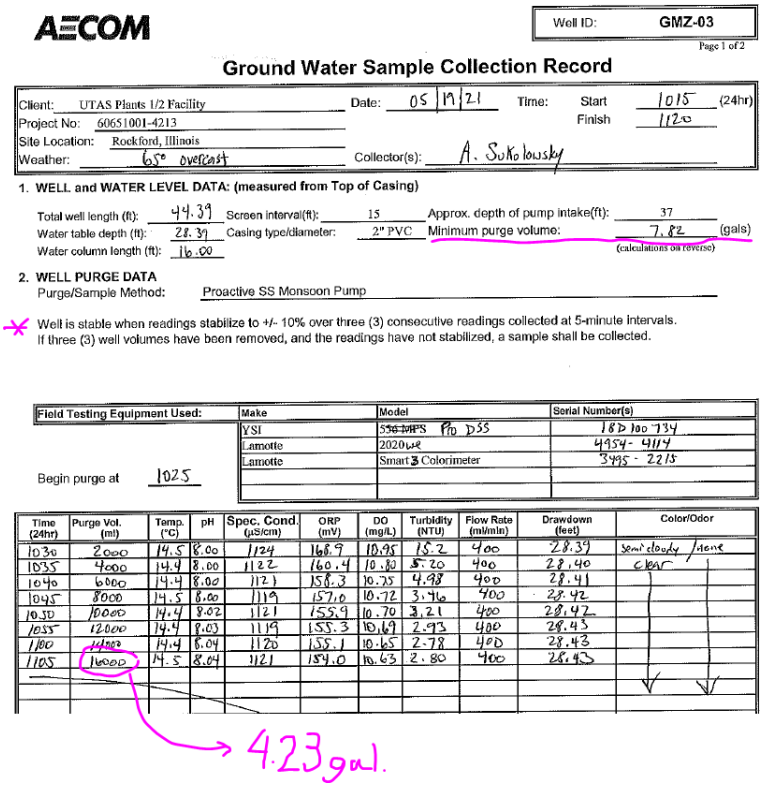
Comment 7: ***Appendix D.***

a. *Well identification (IDs) in Appendix D don't match well IDs in the various components of this report; report and letter text, appendices, figures, and tables (RAMW-01 vs RAMW01, GMZ-01 vs GMZ01, etc.) Name consistency for wells should be verified and corrected as necessary throughout the deliverable [and electronic data deliverable EDD)].*

Response: The field forms have been modified to remove the dashes in the well identification.

b. *Field notes indicated that sampling criteria for collecting samples from groundwater wells would meet a 10% stabilization target for the field parameters in three consecutive 5-minute intervals (marked by pink * on image below). If stabilization could not be met, then the sample could be collected after three well volumes have been removed from the well. There is an inconsistency in the field forms relating to reporting the minimum purge volume (underlined in pink; equal to 3 well volumes) and the statement about stabilization criteria. The field form is not clear on which takes precedence and if this follows the UFP-QAPP and low flow groundwater sampling standard operating procedure (SOP).*

Additionally, the low flow groundwater SOP (Attachment 1 page 8) in the UFP-QAPP indicates a more nuanced stabilization target (e.g., +/- 0.1 for pH, +/- 3% for SEC, +/- 10 millivolts for ORP, etc.) than the generalized 10% in the field form. If these (and others in 2Q 2021) collections are deviations from the UFP-QAPP this should be documented in a deviations (or similarly named) section of the report.



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Well ID: GMZ-03

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Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility
Project No: 60651001-4213
Site Location: Rockford, Illinois
Weather: 65° overcast
Date: 05/19/21
Time: Start 1015 (24hr) Finish 1120
Collector(s): A. Sukolowsky

1. **WELL and WATER LEVEL DATA: (measured from Top of Casing)**

Total well length (ft): 44.39
Water table depth (ft): 28.39
Water column length (ft): 16.00
Screen interval(ft): 15
Casing type/diameter: 2" PVC
Approx. depth of pump intake(ft): 37
Minimum purge volume: 7.82 (gals)
(calculations on reverse)

2. **WELL PURGE DATA**
Purge/Sample Method: Proactive SS Monsoon Pump

* Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals. If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	~~556 MPS~~ Pro DSS	18D 100 734
	Lamotte	2020we	4954 - 4114
	Lamotte	Smart 3 Colorimeter	3495 - 2215

Begin purge at 1025

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1030	2000	14.5	8.00	1124	168.9	10.95	15.2	400	28.39	Semi cloudy / none
1035	4000	14.4	8.00	1122	160.4	10.80	5.20	400	28.40	clear
1040	6000	14.4	8.02	1121	158.3	10.75	4.98	400	28.41	
1045	8000	14.5	8.00	1119	157.10	10.72	3.96	400	28.42	
1050	10000	14.4	8.02	1121	155.9	10.70	3.21	400	28.42	
1055	12000	14.4	8.03	1119	155.3	10.69	2.93	400	28.43	
1100	14000	14.4	8.04	1120	155.1	10.65	2.78	400	28.43	
1105	16000	14.5	8.04	1121	154.0	10.63	2.80	400	28.43	

4.23 gal.

Furthermore, at one location (see below) a little over one well volume was removed and 4 stabilization criteria measurements made. As described above, it is unclear from this form regarding precedence in stabilization versus minimum purge volume. Please clarify for 2Q 2021 and modify future field form templates as needed.

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Well ID: **RAMW-05**

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Ground Water Sample Collection Record

Client: UTAS Plants 1/2 Facility Date: 5-19-21 Time: Start 1015 (24hr)
Project No: 60651001-4213 Finish 1100
Site Location: Rockford, Illinois
Weather: overcast 60-70 °F Collector(s): A. Holst

1. WELL and WATER LEVEL DATA: (measured from Top of Casing)

Total well length (ft): 43.73 Screen interval(ft): 15 Approx. depth of pump intake(ft): 36
Water table depth (ft): 27.35 Casing type/diameter: 2" PVC Minimum purge volume: 8 (gals)
Water column length (ft): 16.38 (calculations on reverse)

2. WELL PURGE DATA
Purge/Sample Method: Proactive SS Monsoon Pump

Well is stable when readings stabilize to +/- 10% over three (3) consecutive readings collected at 5-minute intervals.
If three (3) well volumes have been removed, and the readings have not stabilized, a sample shall be collected.

Field Testing Equipment Used:	Make	Model	Serial Number(s)
	YSI	556 MPS	19K100867
	Lamotte	2020	738-8811
	Lamotte	Smart 2 Colorimeter	00595-4016

Begin purge at 1020

Time (24hr)	Purge Vol. (ml)	Temp. (°C)	pH	Spec. Cond. (µS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Flow Rate (ml/min)	Drawdown (feet)	Color/Odor
1030	5000	15.4	7.60	1569	~~248.7~~	10.70	5.82	500	27.35	clear/none
1035	7500	15.4	7.60	1571	249.0	10.71	5.35	500	27.35	
1040	~~10,000~~	15.4	7.60	1580	250.2	10.76	5.19	500	27.35	
1045	12,500	15.5	7.59	1585	251.0	10.77	4.98	500	27.35	

3.3 gal.

Response: The current approved low flow groundwater sampling SOP is SOP-5 found in the Field Sampling Plan (Stantec, 2008). Stabilization of water quality parameters is defined as when three consecutive measurements taken at 3 to 5 minute intervals are generally within 10%. In a USEPA letter dated April 15, 2011, USEPA approved that if stabilization does not occur after three well volumes, the sample should be collected. The stabilization criteria were achieved prior to sample collection for the samples noted. The field forms have been modified to state “Three Purge Volumes” instead of “Minimum Purge Volume” for clarity. The proposed low flow groundwater SOP in the draft Uniform Federal Policy – Quality Assurance Plan will be consistent with the current approved sampling criteria.

Please contact Peter Hollatz with any questions.

Prepared by:

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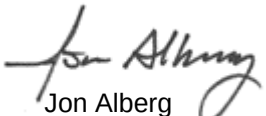

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cc: John Wolski, Raytheon Technologies Corporation